

A STUDY OF THE ADMINISTRATION OF THE
DIVISIONS IN THE INSTITUTES
UNDER THE INDIAN COUNCIL OF AGRICULTURAL RESEARCH

By

Prof. S.P. Verma

DR. K.L. Handa

INDIAN INSTITUTE OF PUBLIC ADMINISTRATION
INDRAPRASTHA ESTATE, RING ROAD
NEW DELHI-110002.

September, 1979



C O N T E N T S

Chapter 1	:	Terms of Reference and Scope of the Study	1- 2
Chapter 2	:	Summary of Conclusions and Recommendations	3-18
Chapter 3	:	The Background of ICAR and its Institutes	19-23
Chapter 4	:	The Agricultural Research Service and the Position of the Head of Division	24-36
Chapter 5	:	The Suggested Pattern of Divisional Administration	37-52
Chapter 6	:	The System of Management Control and Delegations	53-71
Chapter 7	:	Other Related Matters	72-80

.....

CHAPTER -- 1

TERMS OF REFERENCE AND SCOPE OF THE STUDY



Chapter - 1

Terms of Reference and Scope of the Study

In pursuance of a proposal by the Indian Council of Agricultural Research in January 1979, a team consisting of Director (Personnel), ICAR, and two specialists from the Indian Institute of Public Administration was constituted by the Director-General to make an in-depth study into the administration of the Divisions in the ICAR Institutes with a view to: (i) identifying the bottlenecks; and (ii) suggesting remedial measures to eliminate them. The study was initiated on 22nd January, 1979 by Prof. Mohit Bhattacharya and Dr. K.L. Handa of IIPA. Subsequently, because of Prof. Bhattacharya's joining Calcutta University Prof. S.P. Verma replaced him.

The study is primarily concerned with:

- i) Relationships within the Division,
- ii) Inter-divisional relationship,
- iii) Relationship between the Divisions and the Director's Office.

The report which follows has been prepared by Prof. S.P. Verma and Dr. K.L. Handa. They are grateful to Shri P.V. Hariharsankaran, Director (Personnel), ICAR, with whom they had the benefit of discussions on various

matters dealt within the report and who was instrumental in making available all the help needed in connection with the study. The authors are also thankful to the Directors and staff of the various institutes they visited for the help and cooperation rendered by them in the conduct of the study.

Before embarking upon the study, the authors had also the advantage of having preliminary discussions with the (then) Director-General, Dr. M.S. Swaminathan. The authors are indebted to him for sparing his valuable time.

The Director of IIPA, Shri T.N. Chaturvedi has been extremely helpful in carrying out this study. But for his constant support and advice the report could not have been completed on time. The authors express their deep sense of gratitude for his guidance and help.

CHAPTER - 2

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS



Chapter - 2

Summary of Conclusions and Recommendations

Chapter- 3

- (i) The Divisions in the ICAR institutes have been the main functional units for carrying out the research, educational and extension activities in their respective areas of specialization. Their functioning, however, has come under severe criticism, primarily because of intra-divisional administrative problems which have seriously hampered the research and other activities of the scientists.

Chapter- 4

- (ii) The well-intentioned Agricultural Research Service scheme has to operate within a properly adjusted administrative system and a suitably created environment of work if return from investment on agricultural research is to be optimised.
- (iii) The study has revealed that neither the organisation structure nor the work environment of the

Divisions, particularly in bigger institutes, are such as would motivate scientists to dedicate themselves to research, education, and extension work in their respective areas of specialization in order to achieve the objectives of the institute in which they are functioning.

- (iv) The dysfunctional work environment has resulted because of the dichotomy which exists between the forward looking Agricultural Research Service scheme and the old organisational structure in which it is operating. An organizational form appropriate to the new personnel policy and reflecting the requirements of performance oriented research projects has not been evolved to synchronize with the objectives of these institutes for innovations in the areas of problem solving applied research and mission oriented basic research.
- (v) The main problem responsible for the frustrations of the scientists may be identified as the manner in which various Divisions in these institutes are organized and are functioning. A Division is headed by a Head of Division, who is generally an S-3 scientist or a scientist of an equivalent level. He wields administrative and financial powers in relation to the functioning of the

Division. He is responsible for regulating and co-ordinating the working of other scientists in the Division. He also records his comments on the annual performance reports of the scientists working in the Division.

- (vi) But, with the introduction of the Agricultural Research Service and the 5-yearly assessment system for promotion of scientists to the next grade, more and more scientists in a Division are gradually being up-graded to S-3 level, thereby bringing them at par with the grade of the Head of Division. Over a period, this process will go on increasing the number of scientists in S-3 grade in each Division. The scientists who reach S-3 grade find it hard to have another S-3 scientist as Head of Division wielding administrative, financial and academic control over them. Even the scientists at lower levels, i.e., S-2 or S-1 do not relish restrictive administrative and financial control exercised by the Head of Division. This situation has already resulted in too many irritations between the Head of Division and other scientists in the Division on various matters.

- (vii) The situation can be remedied by assigning to the Head of Division the functions of a coordinator to manage and control the common facilities and services of the Division. He may also co-ordinate academic matters of common interest to scientists in the Division. The Head of Division may be delegated the necessary administrative and financial powers for managing these functions. He may be appointed on rotation basis for a term of three years. The appointment of Head of Division by rotation may be restricted to senior scientists of S-3 grade if sufficient number of these are available in the Division. Otherwise, even S-2 scientists may be considered for appointment as Head of Division on the basis of rotation.
- (viii) Whereas the Head of Division is to assume the role of a coordinator for academic and administrative matters pertaining to the Division on tenure basis, the academic leadership has to be dispersed among principal investigators or project leaders in regard to their respective projects.

Chapter- 5

- (ix) The Divisions in the Institutes under ICAR are carrying out their functions in terms of research projects, extension programmes and educational activities, which are the basic output units. A research project is conducted by a scientist as its Principal Investigator, and the project team also includes some other scientists as collaborators. In most cases, the performance unit for which inputs or expenditure of resources can be related to the resulting output is a project. For achieving an efficient functioning of a performance unit, it is necessary that adequate powers commensurate with the task to be accomplished are delegated to the concerned responsibility centre. A dysfunctionality is, at present, existing in the working of the Divisions because of the violation of this basic principle that powers must match the responsibility to be discharged.
- (x) The Head of Division is having centred in him most of the financial and administrative powers delegated to the Division without himself being

directly accountable for the successful completion of the various projects in which scientists from his Division are participating as principal investigators or as collaborators. The scientists in the Division are responsible for executing the projects in which they are engaged without possessing the powers commensurate with and necessary for the discharge of their responsibilities. The result is that distortions are taking place at both the levels, i.e., the Head of Division and the individual scientist.

- (xi) The remedy suggested to resolve this problem is that powers should be centred only at levels which are responsible and accountable for definite performance. In the Institute, the first such level at the top is the Director himself, who should be delegated all the administrative and financial powers commensurate with his responsibility. This is essential and important because performance of the various scientists in the Institute, and therefore that of the Institute itself reflects into his performance.
- (xii) The next level in the Institute, below the Director's level, and responsible for definite

performance is a project unit whose leader or principal investigator should be delegated powers commensurate with his responsibilities and the tasks to be accomplished by him. This does not mean that there is no need for Divisions which are organized in terms of specific disciplines. These Divisions would continue to be necessary to retain the identity of a discipline, and to provide an organization for the scientists belonging to the same discipline to have better interaction among them, which is necessary for their growth and development. But, the rigidity surrounding a Division because of the centralisation of most of the delegated powers in the Head of Division must be removed in order to provide the necessary flexibility and better facility to the scientists for executing their projects, and for working on inter-Divisional and multi-disciplinary projects which may cut across Division boundaries.

- (xiii) It is, therefore, suggested that the administrative and financial powers necessary for executing a project should be delegated to the scientist who is the principal investigator of the project. There can be further scope for redelegation of

powers from the principal investigator to other scientists responsible for executing definite components of the project.

- (xiv) The facilities and services specific to the requirements of a project should be placed under the charge of the concerned project leader so that he may not have to depend on the exercise of discretion by the Head of Division in such matters. Project-based management of research in the Institute will create discrete performance units with distinct responsibilities assigned to scientists. The project can, thus, be treated as a responsibility centre with the project leader exercising specific delegations and being held accountable for the results to be achieved. Such an approach would decentralise powers and distribute them between the Head of Division and the project leaders.

- (xv) If financial and administrative powers are to be delegated to the project leaders, it would become necessary for the purposes of accountability that budget classification is also structured in terms of these projects and funds allocated accordingly. Not only that, accounting classification would also need to be structured in a way as

to provide for recording of transactions in terms of account heads assigned to projects and their sub units.

- (xvi) In such a scheme, a reporting system which keeps informing the Director, periodically, about the use of delegations by the project authorities and the corresponding achievements, would need to be designed to ensure accountability for the expenditure incurred. The reports to be furnished to the Director or returns to be submitted to his office should not be too many, and their number should be kept to the absolute minimum required.
- (xvii) A project-based system of management would make a proper planning of projects of utmost importance before project-wise budgetary allocation of funds can be decided upon. It is not only that a proper scrutiny of new research projects is of vital importance, even the projects once approved and under implementation should be subjected to a thorough examination at periodical intervals. A zero base planning exercise should be conducted for each running project every five years to determine its justification for further continuance.

(xviii) The resource requirements for executing a project, like manpower, material, machinery, equipment, etc., need to be determined on the basis of scientific norms and standards for each of the inputs. This is essential to remove adhoc or arbitrary approaches in framing the budget by the project leader and in scrutiny of such budget estimates in the central office under the Director.

(xix) The position and role of the Head of Division as delineated in this report would necessitate change in the system of writing of confidential reports of scientists by the Head of Division. Whereas the Director of the Institute being ultimately responsible for the output of the Institute, must be involved in the assessment of the performance of scientists, the other procedures as at present existing need considerable change. In smaller institutes, and particularly for the senior scientists, it should be possible for the Director himself to make annual assessment of the work of these scientists in consultation with appropriate panels of experts. For others, he may constitute panels of experts for specific disciplines for carrying out annual performance

assessment of the scientists working in each of these disciplines, under his supervision. In the case of bigger institutes, the Director may need to be assisted by a larger number of such panels to cover even the performance assessment of senior scientists in addition to that of other scientists.

Chapter- 6

- (xx) The project based management in terms of responsibility centres enables correlation of the inputs used or the expenditure incurred on a project with the results achieved. The information regarding progressive expenditure on a project should, therefore, be related to the corresponding achievements and periodically reported to the Director of the Institute. Any deviation of actual accomplishment from the budget plan must be properly analysed and explained. Monitoring and analysis of such information in the central office to assist the Director would facilitate exercise of management control on his part and make it more meaningful.
- (xxi) Such a management control system would help enforce accountability of the project leader for the research tasks assigned to him. But, before he

can be held responsible for the achievement of results, it is necessary to ensure that he is provided with the various facilities required for an effective implementation of his project. These facilities may be in terms of the necessary delegation of powers, simple and workable administrative and financial procedures, and the necessary support services of accounts and administrative staff.

- (xxii) There is an urgent need to remove the long delays which take place while effecting purchases through DGS & D, and which cause lot of irritations and frustrations to the scientists because these seriously dislocate and upset their research work. The entire arrangement for the utilization of the services of DGS & D needs to be reviewed.
- (xxiii) It has been observed that certain equipments possessed by different Divisions of an Institute, which are required for use by scientists in another Division do not easily become available to them. It may be desirable to consider that for such like major equipments, a centralised facility is created to which all the scientists in the Institute who need to use the equipment should have access according to a proper system established.

- (xxiv) Efforts should be made to formulate a simplified purchase manual, containing rationalised procedures, for ICAR institutes so that purchases of materials and equipment needed by the scientists are transacted without undue delay, and audit objections are kept to a minimum.
- (xxv) In a project based system of responsibility centres, powers for sanctioning a purchase upto Rs.5000/- should be delegated to each project leader provided he is S-3 grade scientist or of above level. Other levels of scientists, i.e., S-2 grade and S-1 grade should be delegated downward graded powers for sanction of purchases, say Rs.3000 for S-2 grade scientist and Rs.1000 for S-1 grade scientist or some other suitable limits. Enhanced delegations would be necessary for a scientist who is incharge of a regional centre located at a place far removed from the headquarters of the Institute. The delegation pattern for such regional centres would need to be framed after making a thorough study of their specific needs and by striking a balance between the requirements of financial control and providing the necessary facilities to the scientists.

(xxvi) The observance of rules and regulations on the part of scientists is essential so that audit objections are not attracted which would otherwise consume their time on a non-research activity. The scientists' awareness of the requirements of financial rules can be ensured if each Division is equipped with competent administrative/accounts personnel who should provide the needed support to the Head of Division and other project leaders in the Division.

Chapter- 7

(xxvii) It is imperative that the scientists' perception of the problems of administration is made realistic so that their expectations from the administrative side are brought into proper focus. This should considerably improve the working relationship between the two parties. To bring about the necessary change in the attitude of scientists, it is essential that they are given some training in accounts and financial matters and are made aware of the requirements and problems of the administrative system.

(xxviii) Instead of conducting financial audit in the same way as is done by the Accountant General's team, the ICAR audit agency should, at longer intervals,

inspect the systems installed in the institutes for the conduct of internal audit. It should work out useful suggestions to help management in the successful discharge of their functions.

(xxix) The internal audit agency in an institute should develop two types of specializations - one for financial audit and the other for management audit. The management audit wing should assist the monitoring of projects to help the Director in their evaluation and review. It should focus its efforts to analysing expenditure on different projects in order to examine whether the projects are being executed economically and whether they are producing the results expected of them. The information generated through management audit should help the Director in taking whatever remedial action becomes necessary.

(xxx) A scientist should be burdened as little as possible with non-academic work so as to leave enough time with him to devote to his scientific research. His participation in research and academic committees may be alright for his growth and development. But, his association with so many non-academic committees transacting different types of

administrative work for the scientists in the Division or the Institute can not be appreciated. It certainly takes away lot of his valuable time which could usefully be spent on his primary job of research. It is, therefore, suggested that the participation of scientists in non-academic committees should be kept to the absolute minimum. These committees should mainly be composed of administrative and accounts personnel and presided over by a management scientist, if necessary. A Head of Division may be taken as a member of the committee when matters pertaining to his Division are to be transacted. A scientist should also participate as a member of a non-academic committee when matters directly pertaining to his project have to be transacted by the Committee. But, beyond this, a scientist should be spared the maximum time possible to devote to his creative activity of research by not involving him in non-academic committees.

CHAPTER - 3

THE BACKGROUND OF ICAR AND ITS INSTITUTES



Chapter - 3

The Background of ICAR and its Institutes

The Indian Council of Agricultural Research was established in 1929 as a registered society in pursuance of the recommendation of the Royal Commission on Agriculture. The Commission had recommended the constitution of a national co-ordinating agency in the area of agricultural research. The main function of the ICAR, as an apex co-ordinating body, had been, till 1965, the financing of ad-hoc research projects. These projects were mainly financed from the revenues obtained as a result of Agricultural Produce Cess Act of 1940.

The Government of India decided in 1965 to entrust the responsibility of managing research institutions in the areas of agriculture, animal husbandry, and fisheries, to the ICAR. Thus, a large number of research institutions in these areas, and situated in different parts of the country, came to be managed by the ICAR. These included such institutes also which were till then functioning as Central Civil Departments. The Minister for Agriculture and Irrigation is the President of the ICAR. There is also a Governing Body composed of 22 members with the Director-General as its Chairman. The Director-General is the principal executive in the ICAR.

The institutes which were merged with the ICAR were of varying sizes and had different backgrounds so far as their organisational structure and administrative set up were concerned. A common feature in their functioning under the ICAR, however, has been that they have been carrying on their work through specialized Divisions or similar units into which they have been organised. Each Division generally functions under the charge of a Head of Division. Till the introduction of the Indian Agricultural Research Service, a Head of Division used to be selected through the Union Public Service Commission and appointed to the post as such. His functions have included running of the administration of his Division, regulating the provision of facilities to scientists, writing annual confidential reports of the scientists working in the Division, providing a link between the Division and the central office of the institute, and co-ordinating the work and activities of the Division.

The Divisions in the ICAR institutes have been the main functional units for carrying out the research, educational and extension activities in their respective areas of specialization. Their functioning, however, has come under severe criticism, primarily because of intra-divisional administrative problems which have seriously hampered the research and other activities of the scientists. The problems of inter-personal relationship

among scientists within a Division, combined with other problems regarding inadequate delegations and dilatory administrative and financial procedures have given rise to bitter complaints from the scientists that they were unable to function according to their capacity and their research work was very badly suffering.

The ICAR Enquiry Committee, which was appointed in 1972, pointed out in its report that the working conditions for scientists were not conducive to research. Some of the major complaints regarding the working conditions in the Divisions as mentioned in the Enquiry Committee Report and quoted by the Estimates Committee (Sixth Lok Sabha) in its 35th report on Indian Council of Agricultural Research - Working Conditions of Agricultural Scientists (at page 15) are:

- (i) The Head of Division does not give facilities for work. He favours those who work for him.
- (ii) There is no academic atmosphere as there is no free discussion on research projects and results obtained.
- (iii) Senior scientists insert their names in research papers even though they do not do the actual work.
- (iv) Purchase of chemicals, glassware, etc., take inordinate delay.
- (v) Scientists are not allowed to use certain equipments which are available in the Divisions or in the

Institute. For example, the equipments available in the Division of Biochemistry of IARI are not shared by all the colleagues of the Division or in the Institute. The Nuclear Research Laboratory has several equipments which scientists of other Divisions normally cannot use.

The Enquiry Committee found most of these complaints as genuine.

The deterioration of working conditions in the Divisions has resulted in a good amount of a scientist's time being wasted on unacademic activities. In order to solve these problems and remove the complaints of the scientists, it has been suggested by some expert bodies that Divisional Committees comprising various grades of scientists should be constituted to look after some of the functions of the Division. The ICAR Enquiry Committee also made a recommendation on these lines. It observed that "the administration of Division should be such that all the scientists may be involved in it. This should make them feel that they have something to contribute to the progress of the Division".*

In the ICAR institutes, committees of various types and at different levels have been constituted to look after matters concerning the work requirements and other needs of the

* Cited from the Estimates Committee (Sixth Lok Sabha), Thirty Fifth Report, on Ministry of Agriculture and Irrigation - Indian Council of Agricultural Research, Working Conditions of Agricultural Scientists, 1978-79, p.17.

scientists. These committees are also involved in transacting business pertaining to some aspects of the administration of the Divisions. There is, however, no uniform pattern for the functioning of these committees. The constitution and operation of these committees, generally, depend upon the size of the Institute and the nature and quantum of work to be transacted. In certain cases, there are Divisional Committees attending to a particular item of work, which in other institutes may be transacted by Committees at the Institute's headquarters level. However, committees with the participation of scientists have been functioning in different forms in the various institutes of the ICAR to look after different types of business.

CHAPTER - 4

THE AGRICULTURAL RESEARCH SERVICE
AND THE POSITION OF THE HEAD OF
DIVISION



Chapter - 4

The Agricultural Research Service and the Position of the Head of Division

The ICAR institutes are engaged in creative activities which require scholarship of talented scientists, and an attitude of mind on their part conducive to the promotion of these activities. An Agricultural Research Service has been created by the ICAR since October 1975 to attract bright scientists to its institutes and to provide better promotion prospects to those working therein. This service includes all posts in the area of agricultural research and education (including extension education), the duties of which may require expertise in physical, biological, engineering, technological, statistical, home or social sciences or in planning, programming and management of scientific research. The service is composed of four grades of scientists, viz., S, S-1, S-2 and S-3.*

A single member Agricultural Scientists Recruitment Board (ASRB) has been set up as an independent recruiting agency. Its functions include: (i) recruitment to posts in

* These carry pay scales of Rs.650-1200 for S grade, Rs.700-1300 for S-1, Rs.1100-1600 for S-2 and Rs.1500-2000 for S-3.

the Agricultural Research Service, (ii) recruitment to such other posts and services as may be specified by the President of the Society from time to time, and (iii) rendering such other assistance in personnel matters including promotion as may be required by the President of the ICAR.

The Service was initially constituted by the absorption of regular employees of the Council after assessment of their eligibility and suitability by the Agricultural Scientists Recruitment Board. Those employees who were not qualified for the purpose of absorption into the Service at the time of its Constitution, have been allowed time till 1st October, 1980, to acquire the requisite qualifications so that they could be inducted into the Service on being found suitable by the ASRB. Scientists are also recruited to S 1 grade of the Service on selection by the ASRB through a competitive examination. The Service, in addition to recruiting the scientists through competitive examination, is also maintained by lateral entry of scientists to higher grades through selection by the ASRB. Eminent scientists are also invited for suitable appointments with the approval of the Controlling Authority.

A significant feature of the Agricultural Research Service is that scientists inducted into or recruited to it can be promoted irrespective of the occurrence of vacancies.

This is done on the basis of five-yearly assessment of a scientist's performance by an external panel of eminent scientists nominated by the Chairman of ASRB. These panels or committees are constituted for each professional discipline. The Chairman of the ASRB chooses eminent scientists belonging to a particular discipline to be members of the committee for conducting the five-yearly assessment of scientists in that discipline. The scientists in grades S-1 to S-3, after completing five years of service in their respective grades, become eligible for assessment for promotion to the next grade or for advance increments in the existing grade. This condition of five years' service requirement for the assessment of the work of a scientist is, however, not applicable to the cases of scientists in grade S who may be assessed for promotion to grade S-1 or assessed for advance increments within grade S before their completing five years of service.

The five-yearly assessment of the performance of a scientist done by an expert panel constituted by the ASRB Chairman, is conducted by taking into consideration the following:

- (i) the material furnished in the 5-yearly assessment proforma,
- (ii) research project files maintained by the scientist,

- (iii) bio-data and career information by the scientist throughout his service in the ICAR,
- (iv) confidential reports for the past five years,
- (v) personal discussion if so desired by the concerned scientist.

The purpose of the Agricultural Research Service is to enable a young scientist who enters a research career, to achieve the highest salary possible in public services without changing his field of specialisation and without shifting to administrative posts. The built-in opportunity for career advancement in the Agricultural Research Service, irrespective of the occurrence of vacancies, should motivate a scientist to be all the time competing with his own past performance with a view to showing better results. The system of five-yearly assessment seeks to link rights with duties in a way that dedicated and efficient discharge of responsibilities by the scientists should become the means for securing professional advancement.

The personnel policies of the research institutes of the ICAR have, therefore, been so oriented as to provide satisfaction to a scientist so far as his career prospects are concerned. The intention is to achieve the best results out of a scientist's efforts in order to get the maximum return

from the investment made in agricultural research. However, the quality and quantum of work done by a scientist are also dependent upon the technical, administrative, and other support he gets from the organisation. The work environment within which he functions would also be a significant factor having bearing on his output. The well-intentioned Agricultural Research Service scheme has, therefore, to operate within a properly adjusted administrative system and a suitably created environment of work if return from investment on agricultural research is to be optimised.

Our study has revealed that neither the organisation structure nor the work environment of the Divisions, particularly in bigger institutes, are such as would motivate scientists to dedicate themselves to research, education, and extension work in their respective areas of specialization in order to achieve the objectives of the institute in which they are functioning. In brief, the real problem seems to be that growth and diversification (differentiation) have not been paralleled by commensurate work organisation. Each Division has a number of members who have been inducted from time to time to add to the strength of the Division. This has resulted in: (a) new behavioural disposition seeping in the Division, and (b) additional demand on the support services such as laboratory, labour, and administrative inputs (stores, etc.). It seems efforts are needed to realign the organisation of the

Division in the light of its growth and development.

The Agricultural Research Service ~~scheme~~ has operated for a few years so far (i.e. from October 1975 to date). May be, it is somewhat early to expect the necessary changes in the attitudes of scientists to have come about as visualized in the new personnel policy. It was thought that the five-yearly assessment system for promotions would impel the scientists to compete with their own record rather than with each other. It was also hoped that the new Service would elicit acceptance from the scientists of the principle that rights and responsibilities are inseparable. The behaviour pattern of the scientists, it was expected, would embody these features which should become part of the work culture of their organisation. It seems that if the realization of these hopes is to be facilitated, the Divisional administration would need to be reorganized with the necessary reforms brought about in organisation structure and administrative procedures.

The dysfunctional work environment has resulted because of the dichotomy which exists between the forward looking Agricultural Research Service ~~scheme~~ and the old organisational structure in which it is operating. An organizational form appropriate to the new personnel policy and reflecting

the requirements of performance oriented research projects has not been evolved to synchronize with the objectives of these institutes for innovations in the areas of problem solving applied research and mission oriented basic research.

The Division is the basic functional unit in an ICAR Institute. It is the membership of a Division which broadly defines a scientist's area of work. It is through the Division that he relates himself to the larger structure of the Institute. This relationship is also marked by the fact that the scientists in the Division are not equal in rank, status and power. There are senior scientists, professors, scientists, associate professors, junior scientists, assistant professors, and other technical and non-technical staff working in various research projects.

The main problem responsible for the frustrations of the scientists may be identified as the manner in which various Divisions in these institutes are organized and are functioning. A Division is headed by a Head of Division, who is generally an S 3 scientist or a scientist of an equivalent level. He wields administrative and financial powers in relation to the functioning of the Division. He is responsible for regulating and coordinating the working of other scientists in the Division. He also records his comments on the annual performance reports of the scientists working in the Division.

Under the system which obtained before the introduction of the Agricultural Research Service, the Head of Division used to be in a scale higher than the scales of pay of other scientists in the Division. He was taken as a superior so far as his status was concerned. He wielded the powers of a controlling authority (administrative and academic) over other scientists in the Division. Though such a hierarchical structure was not suitable for the organisation of research activities, less complaints might have been heard because the scientists in the Division accepted the higher status of the Head of Division.

But, with the introduction of the Agricultural Research Service and the 5-yearly assessment system for promotion of scientists to the next grade, more and more scientists in a Division are gradually being upgraded to S 3 level, thereby bringing them at par with the grade of the Head of Division. Over a period, this process will go on increasing the number of scientists in S 3 grade in each Division. The scientists who reach S 3 grade find it hard to have another S 3 scientist as Head of Division wielding administrative, financial and academic control over them. Even the scientists at lower levels, i.e., S 2 or S 1 do not relish restrictive administrative and financial control exercised by the Head of Division.

This situation has already resulted in too many irritations between the Head of Division and other scientists in the Division on various matters. During our interviews with a number of scientists, many of them confessed that their productivity was less than 50 per cent of their capacity because of these problems. The scientists encounter irritations in dealing with the Head of Division whether they are working on a project based in the Division, or participating in a project of another Division, or when they collaborate in an All India Coordinated Project.

The constitution of the Agricultural Research Service though well intentioned, has, thus, become a major factor which has led to erosion of cohesion in the Divisional organization. The scientists finding it difficult to ensure fructification of individual research work, tend to develop a feeling of alienation from creative work. This also paves the way for internecine conflicts and 'back-biting'.

Under such conditions, the organizational set up of a Division in which scientists have to function under the administrative control of the Head of Division for almost every matter becomes unsuitable to cater to the work requirements and emotional needs of the scientists. As suggested in our preliminary report, submitted in February 1979, the situation can be remedied by assigning to the Head of

Division the functions of a co-ordinator to manage and control the common facilities and services of the Division. He may also coordinate academic matters of common interest to scientists in the Division. The Head of Division may be delegated the necessary administrative and financial powers for managing these functions. He may be appointed on rotation basis for a term of three years. The appointment of Head of Division by rotation may be restricted to senior scientists of S-3 grade if sufficient number of these are available in the Division. Otherwise, even S-2 scientists may be considered for appointment as Head of Division on the basis of rotation. It may be pertinent to mention here that the Agricultural Research Service Rules provide:

"The posts of Heads of Divisions in the Institutes shall be filled by rotation from amongst the Professors in the Divisions or other senior scientists in the scales of pay of Rs.1500-2000 or Rs.1800-2000."*

The ICAR has already issued the necessary orders (effective from 1st April 1979) and guidelines for

*Indian Council of Agricultural Research, "Agricultural Research Service", October 1977, New Delhi, p.14.

making appointments of Heads of Divisions on rotation basis.**

A significant implication of the principle of rotation is that the earlier concept of the Head of Division providing scientific leadership in the Division no more holds good.

Whereas he is to assume the role of a coordinator for academic and administrative matters pertaining to the Division during his tenure as Head of Division, the academic leadership has to be seen in the context of growing specialisations in projects under various principal investigators or project leaders.

It is quite likely that some of the S 3 grade scientists may decline the position of Head of Division when their turn is due on rotation principle. The functions of academic and administrative coordination to be performed by the Heads of Division may consume lot of their time and energy in transacting such work. A scientist, seriously involved in research

** These orders are, however, not applicable to the Heads of Divisions who have not opted for the Agricultural Research Service and are holding confirmed positions. They are about eighteen in number and are spread over in three institutes. It is only after such Heads of Divisions vacate their positions that these Divisions can be brought under the rotational system.

work may not be willing to spend his time on academic and administrative coordination jobs for the Division.

It is evident that when this office was instituted, the Head of Division in addition to administering the affairs of the Division, was also to provide scientific leadership to other scientists working in the Division. Over a period of time, in view of the increasing specializations as well as the creation of Agricultural Research Service resulting into gradually more and more scientists in a Division being promoted to S-3 grade, a situation has arisen where the scientists find it hard to accept the Head of Division as in a position to provide them scientific leadership. This is particularly so because the scientists in a Division work in diverse specialized fields with which the Head of Division may or may not be directly associated or interested academically. What would be acceptable in the changed situation in regard to functions of the Head of Division, therefore, are his tasks of coordinating the various academic and administrative activities of the Division and managing its common facilities. For such a changed role of the Head of Division, in case sufficient number of S-3 grade scientists are not available, who may be willing to accept such a position, the purpose can be adequately served by rotating the position among S-2 grade scientists also.

We envisage a situation wherein the system ensures that scientists really devoted to their research work would not seek or show eagerness to occupy the office of the Head of Division which entails a large amount of routine administrative chores. Presently, a lot of irritations and heart burning amongst the scientists can be attributed to a feeling of 'bossism' by the Head of Division on various matters including routine administrative problems such as purchase and supply of material and equipment or providing laboratory facilities or field attendants needed for carrying out their work. The situation is, however, much better in smaller institutes where the span of control is within manageable limits for the Director of the Institute to himself be able to oversee the important aspects of the functioning of a Division. In general, a significant improvement in the situation could be expected if the functions of the Head of Division are restricted to co-ordinating the research and academic activities of the Division and managing its common facilities on a tenure basis.

CHAPTER - 5

THE SUGGESTED PATTERN OF DIVISIONAL ADMINISTRATION



Chapter - 5

The Suggested Pattern of Divisional Administration

In the recent orders issued by the ICAR, effective from 1st April, 1979, it has been provided that the position of a Head of Division is to be filled by rotation from amongst scientists holding grades of Rs.1800-2000 or Rs.1500-2000 and those having higher personal grade and working in the Division. A Head of Division is to hold the position on a tenure basis for a period of three years at a time. In case, there is no S 3 grade scientist available in a Division, the position of the Head of Division can be filled from amongst S 2 grade scientists of the Division. It is also provided that an eligible scientist may at his option decline to accept the position of Head of Division. The responsibility of the Head of Division covers the work relating to organisation and management of research, teaching and extension education. Also, the functions of Heads of Division are to include such other tasks and duties as are assigned to them by the Director of the Institute.

The principle of appointment of Head of Division by rotation and on tenure basis, from amongst S 3 grade scientists and, if necessary, also from S 2 grade scientists, should bring about a significant change in the position and role of the Head of Division. Instead of being an administrative and an academic leader in the Division, as has been the case so far, his role

may be perceived as that of a co-ordinator for managing the various research, academic and administrative activities of the Division. The academic and research leadership necessary to be provided for executing projects may devolve on scientists functioning as project leaders or principal investigators in their related fields of specialisation.

A scientific institution seen as an organisation consists of people - scientists, technicians, skilled and unskilled workers, students, researchers, administrators and resources, like funds, laboratories, equipments and material. It has to establish internal systems and processes which are regulated by the leadership function to enable the scientists to use other resources to accomplish the purposes of the institution or to achieve the objectives assigned to them through the tasks of research, education or extension which they have undertaken.

The Divisions in the Institutes under ICAR are carrying out their functions in terms of research projects, extension programmes and educational activities, which are the basic output units. A research project is conducted by a scientist as its Principal Investigator, and the project team also includes some other scientists as collaborators. The Principal Investigator and other collaborators in a project may be scientists in different grades, such as S 3, S 2, S 1 and

sometimes even 5-4. The project team may comprise scientists from the same Division or scientists from different Divisions, depending upon the nature and requirements of the project. There are also All India Coordinated Projects which may be based in the Division or organised outside the Division's framework. These may include in the project team, scientists from different Divisions or scientists from different institutions.

Thus, in most cases, the performance unit for which inputs or expenditure of resources can be related to the resulting output is a project, whether based in a Division or located outside its framework. For achieving an efficient functioning of a performance unit, it is necessary that adequate powers commensurate with the task to be accomplished are delegated to the concerned responsibility centre. A dysfunctionality is, at present, existing in the working of the Divisions because of the violation of this basic principle that powers must match the responsibility to be discharged.

The Head of Division is having centred in him most of the financial and administrative powers delegated to the Division without himself being directly accountable for the successful completion of the various projects in which scientists from his Division are participating as Principal

Investigators or as collaborators. The scientists in the Division are responsible for executing the projects in which they are engaged without possessing the powers commensurate with and necessary for the discharge of their responsibilities. The result is that distortions are taking place at both the levels, i.e., the Head of Division and the individual scientist.

More powers as compared to the research responsibility at the level of the Head of Division are producing a tendency in him towards bureaucratisation of functions and hierarchical assertions on various matters in his dealings with other scientists in the Division. This is accentuated by the fact that the scientists in the Division, individually, have to own responsibility for their performance which has no bearing on the professional performance of the Head of Division as a scientist. At the level of the individual scientist, distortions are taking place and optimum results of his performance are not being achieved because of the necessary operating facility of delegation of powers not matching his responsibility or task requirements.

The remedy suggested to resolve this problem is that powers should be centred only at levels which are responsible and accountable for definite performance. In the Institute, the first such level at the top is the Director himself, who

should be delegated all the administrative and financial powers commensurate with his responsibility. This is essential and important because performance of the various scientists in the Institute, and therefore, that of the Institute itself reflects into his performance.

The next level in the Institute, below the Director's level, and responsible for definite performance is a Project Unit whose leader or Principal Investigator should be delegated powers commensurate with his responsibilities and the tasks to be accomplished by him. This does not mean that there is no need for Divisions which are organized in terms of specific disciplines. These Divisions would continue to be necessary to retain the identity of a discipline, and to provide an organization for the scientists belonging to the same discipline to have better interaction among them, which is necessary for their growth and development. But, the rigidity surrounding a Division because of the centralisation of most of the delegated powers in the Head of Division must be removed in order to provide the necessary flexibility and better facility to the scientists for executing their projects, and for working on inter-Divisional and multi-disciplinary projects which may cut across Division boundaries.

It is, therefore, suggested that the administrative and financial powers necessary for executing a project should be delegated to the scientist who is the Principal Investigator of the project. There can be further scope for redelegation of powers from the Principal Investigator to other scientists responsible for executing definite components of the project. The research responsibility itself may be assigned in terms of projects, sub-projects, and experiments. Normally experiments should be assigned to 1 scientists who may be delegated powers keeping in view the level of their responsibility. The scientists incharge of sub-projects and projects should also be delegated powers which may be commensurate with their responsibilities. It has been observed that some of the institutes under ICAR have already delegated powers of expenditure sanction within certain limits to different grades of scientists. This is a step in the right direction. In such cases, it has, however, to be ensured that the delegations are adequately matching the responsibilities of these scientists. And also that there are no undue constraining features either in the structuring of these delegations or in the procedural requirements while exercising them.

There cannot be a standard pattern of delegations to be made to the various scientists in the Institute. Some reasonable categorization would have to be done depending upon the needs

of different types of projects, and a delegation pattern evolved for each category.

The facilities and services specific to the requirements of a project should be placed under the charge of the concerned Project Leader so that he may not have to depend on the exercise of discretion by the Head of Division in such matters. A Project Leader in such a situation, would be devoting some of his time to matters pertaining to exercise of his delegations. This would, however, consume only a limited portion of his time.

Right now, a project leader has to spend a considerable amount of time in procuring these facilities through the Head of Division. This also involves lot of irritations and heart-burning for the scientists in many cases. During our interviews with some of the senior scientists, an over-whelming majority of them agreed that such irritations and problems took away far more of their valuable time and energy than they would need to spend in exercising the needed delegations themselves. In addition, power assertions of the Head of Division in these matters, who in most cases is of the same rank as other senior scientists, tend to lower their morale and bring about frustration in them. So, as a trade-off between exercise of some powers themselves by the project leaders in connection with their projects and getting these managed through the Head of Division, the former course is found to be advantageous from the point of view of saving time and retaining motivation of the scientists.

Research is a creative activity. It requires men of scholarship, integrity, dedication, with an attitude of mind which takes work and recreation as synonymous. An Institute dealing with research, therefore, should have an organisation structure appropriate to its functions. Project-based management of research in the Institute will create discrete performance units with distinct responsibilities assigned to scientists, which with the provision of the necessary facilities required for executing the projects, should motivate the scientists to put in their best performance. The project can, thus, be treated as a responsibility centre with the project leader exercising specific delegations and being held accountable for the results to be achieved.

Such an approach would decentralise powers and distribute them between the Head of Division and the project leaders. The Head of Division would be delegated only those powers which are required by him for administering the common facilities of the Division and for co-ordinating its various academic and research activities. Laboratory facilities, equipments, machinery, technical staff for support which are needed by more than one scientist in the Division would make a common facility and, therefore, should be controlled and managed by the Head of Division. Exception may, however, be made in respect of such facilities of a minor nature which

involve an expenditure below a particular limit and, therefore, can be provided to each project **individually**. Those facilities and support services which are specific to a project should be placed under the charge of the project leader. The Head of Division would enjoy powers as coordinator during his tenure of office. He may also be delegated powers as to any other scientist engaged in a definite research project, which may be commensurate with his responsibility for executing the project.

If financial and administrative powers are to be delegated to the project leaders, it would become necessary for the purposes of accountability that budget classification is also structured in terms of these projects and funds allocated accordingly. Not only that, accounting classification would also need to be structured in a way as to provide for recording of transactions in terms of account heads assigned to projects and their sub units.

At present, budget allocations are made in respect of Divisions. In the changed system as suggested by us, these allocations would need to be decided upon in terms of projects. However, before that can be done, the Principal Investigator of the project will have to do advance planning and prepare detailed budget estimates for the proposed expenditure on the project during the ensuing financial year.

These budget estimates prepared for a project would need to be scrutinised in the central office under the Director to ensure that they have been framed properly by using accepted norms. Necessary arrangements will have to be made for the purpose. It is only after the budget estimates are approved by the Director, that the Principal Investigator can exercise his delegated powers for sanctioning expenditure against the allotted budget provision. The project authorities would, however, need the facilities of administrative and accounts support in the exercise of their delegated powers, for which also suitable arrangements would need to be worked out. In such a scheme, a reporting system which keeps informed the Director, periodically, about the use of delegations by the project authorities and the corresponding achievements, would need to be designed to ensure accountability for the expenditure incurred. The reports to be furnished to the Director or returns to be submitted to his office should not be too many, and their number should be kept to the absolute minimum required.

If budget estimates are to be framed realistically for a project, it is necessary that the research plans are prepared sufficiently in advance to enable a Principal Investigator to determine properly the resource requirements for his project during the ensuing budget year. It is also essential that a Principal Investigator should participate actively in the planning of his research project.

In the research institutes under ICAR, a substantial portion of the work done is in the form of research projects. A proper planning of these projects is, therefore, of utmost importance before project-wise budgetary allocation of funds can be decided upon. Of course, the planning process in these institutes has to be conducted within the guidelines issued by the ICAR headquarters for the achievement of its objectives regarding the application of science and technology to problems of agricultural production. These guidelines are used by the individual institutions as a guiding frame for the screening and selection of new research projects. These are also communicated to the research scientists who are expected to frame their research proposals within these guidelines. The participation of the Heads of Divisions and other scientists in the workshops and ICAR panels also help in percolating the policies of the ICAR headquarters to the Divisions. The research proposals are required to indicate clearly the resources required, estimated duration of the project and the results expected from the project. There is generally a Research Advisory Committee in every Division of an institute, which first discusses the research proposal prepared by a scientist. Next, all the research proposals put forward by the various Divisions are discussed and screened at the Institute's level by its Scientific Research Council. The Head of Division can play an important and significant role both in directing

deliberations of the Research Advisory Committee of the Division and while participating in the discussions of the Scientific Research Council. We hope that by convention scientists of long standing in their discipline would be enabled to provide academic guidance in the deliberations of the Advisory Committee and Research Council. Finally, all research projects are cleared by the Director of the Institute.

It is extremely important that a rigorous and meaningful screening is done of all research proposals before according approval to them. The right selection of projects is crucial because if those finally approved are not the proper ones, the institute will not be able to accomplish its objectives effectively. The screening of research proposals would demand considerable foresight on the part of those who scrutinise them, giving proper importance to the areas of priority and keeping in view the expected benefits to accrue from a project as against the estimated cost to be incurred. It is not only that a proper scrutiny of new research projects is of vital importance, even the projects once approved and under implementation should be subjected to a thorough examination at periodical intervals. A zero base planning exercise should be conducted for each running project every five years to determine its justification for further continuance. Such a planning exercise would involve an objective analysis of the project without getting bogged down by the commitments created over the past years during its

implementation. If this examination of the project reveals that expenditure on it is no more a desirable investment and the results expected from the project are not going to be commensurate with the further cost to be incurred, there should not be any hesitation in dropping such a project. A zero base planning every five years is, therefore, necessary to wean out all such running projects which have lost their utility and are not going to yield benefits commensurate with the further cost to be incurred on them.

The budget estimates for the approved projects should be framed by the Principal Investigators for their respective projects. The resource requirements for executing the project, like manpower, material, machinery, equipment, etc., need to be determined on the basis of scientific norms and standards for each of the inputs. This is essential to remove adhoc or arbitrary approaches in framing the budget by the project leader and in scrutiny of such budget estimates in the central office under the Director. A joint exercise must be done before-hand between representatives of the scientists and the administrative and finance authorities to work out agreed norms which may be acceptable to the various parties concerned for estimating the input requirements for projects and for converting these into financial terms. The allocation of funds to a project should be decided on the basis of the

budget estimates thus prepared. Any resource constraint or shortage in the availability of funds should be absorbed by reducing the number of projects to be implemented than by distributing cuts arbitrarily on the resource requirements of the projects accepted for execution.

The important categories of inputs whose requirements for executing a project have been worked out on the basis of scientific norms can be indicated as such in the project budget alongwith their conversion into expenditure estimates. A project leader can be delegated financial powers commensurate with his responsibility, to be exercised against the sanctioned budget for his project. He may even be delegated powers for reappropriation of funds, within specified limits, between different categories of provisions contained in his project budget. Of course, powers for reappropriation of funds from a project where saving has occurred to another where excess expenditure is required, have to vest in the Director of the Institute.

A project budget thus framed, scrutinised, and approved alongwith the necessary delegations, can be used as an accountability document to hold the project leader responsible for the results to be achieved against the resources to be expended in the execution of the project. A properly framed budget for the project is, therefore, essential to correlate output of the project with the expenditure incurred and to pin-point responsibility on the project leader for any lapse.

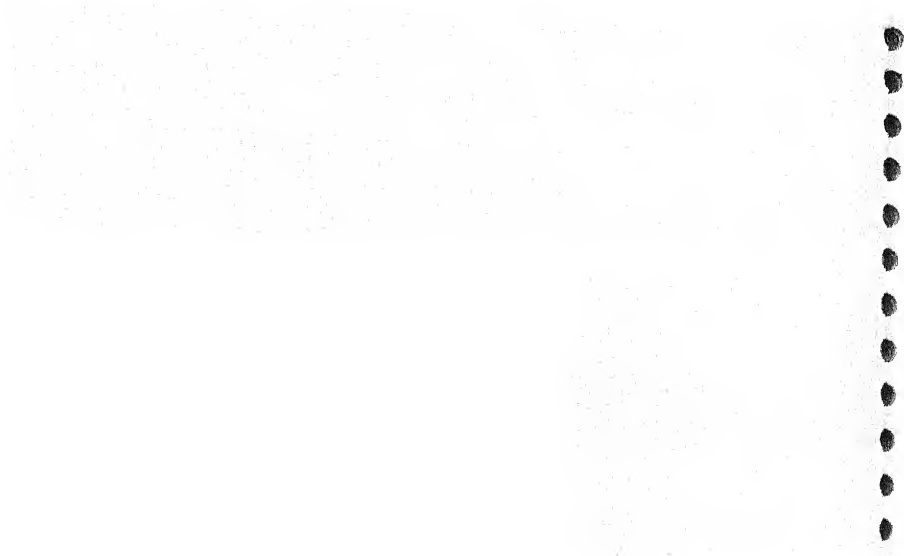
A pertinent question which arises in this context pertains to the evaluation of performance of the scientists working in a Division. At present, the Head of Division writes the annual confidential report of the scientists in the Division. The position and role of the Head of Division as delineated in this report would, however, necessitate change in this system of writing of confidential reports of scientists by the Head of Division. In the changed scheme of things when the academic leadership is dispersed among the principal investigators for their respective projects, it would not be proper to leave with the Head of Division the function of commenting on the academic or research performance of the scientists through their confidential reports. Therefore, we are of the considered opinion that the job of writing the annual confidential reports on the work of scientists in a Division should no more be the function of the Head of Division, and alternative arrangements should be worked out for the purpose.

This raises an important issue of evolving a suitable system for the assessment of performance of scientists. As per the system which obtains currently, each scientist gives his own description of the work done by him during the preceding year. This self-evaluation is then commented upon by the Head of Division before transmitting it to the Director

who makes the final entry in the report. Whereas the Director of the Institute being ultimately responsible for the output of the Institute, must be involved in the assessment of the performance of scientists, the other procedures as at present existing need to be changed. In smaller institutes, and particularly for the senior scientists, it should be possible for the Director himself to make annual assessment of the work of these scientists in consultation with appropriate panels of experts. For others, he may constitute panels of experts for specific disciplines for carrying out, under his supervision, the annual performance assessment of the scientists working in each of these disciplines. In the case of bigger institutes, the Director may need to be assisted by a larger number of such panels to cover even the performance assessment of senior scientists in addition to that of other scientists. The composition of these panels, each of which may comprise a minimum of three members, should be left to the discretion of the Director of the Institute, who may primarily draw upon the expertise available within the Institute, and if necessary, take the help of outside experts.

CHAPTER - 6

THE SYSTEM OF MANAGEMENT CONTROL AND DELEGATIONS



Chapter - 6

The System of Management Control and Delegations

The project based management in terms of responsibility centres enables correlation of the inputs used or the expenditure incurred on a project with the results achieved. Since this relationship between inputs and the resulting output has to be established on the basis of scientific norms which should be acceptable to the various parties concerned, the scheme helps in monitoring whether the project is being implemented and the resources of the organization utilized with the necessary efficiency and economy.

The formulation of a budget plan for a project sets the direction for the various activities to be implemented under it and makes coordination among them easier. Such a coordination is necessary to be achieved between the various components of the project, like sub-projects and experiments, to which specific allotment of resources may be made. Also, against this budget plan, the actual operations taking place during the course of the year can be monitored, evaluated and reviewed at periodic intervals. Such a scheme which relates performance to the expenditure of resources backed by an efficient information system for periodical reporting on the actual achievements should enable the Director to exercise an

effective management control on the implementation of the various projects.

A necessary component of the required information system would be a properly structured accounting classification for a detailed recording of transactions in terms of projects and their sub-units which may be sub-projects and experiments. The information regarding progressive expenditure on a project must also be related to the corresponding achievements and periodically reported to the Director of the Institute. A system of codification may have to be evolved to facilitate identification of each item of expenditure with the specific project. The format of reports to be submitted to the Director should include information regarding actual achievements in regard to a project both in financial and non-monetary terms as compared to the budget plan for the same project. Any deviation of actual accomplishment from the budget plan must be properly analysed and explained. It should also be indicated as to what remedial action has been or is proposed to be taken to correct the situation. Monitoring and analysis of such information in the central office to assist the Director would facilitate exercise of management control on his part and make it more meaningful.

This system would necessitate creation of a monitoring cell in the central office for the purposes of collection and analysis of information received from the project authorities.

The information regarding progress of projects would need to be evaluated and reviewed by the Director in order to exercise an effective management control. If an Institute is of a small size and the span of control is contained within manageable limits for the Director to be able to oversee the implementation of all the projects, he may himself perform the task of evaluation and review of projects with the assistance of staff in the central office. Otherwise, in cases where the size of the Institute is too big, the Director may be assisted for such a type of work by a senior level scientist who may be appointed as Joint Director. It is essential that the information, in financial and non-monetary terms, received in the central office regarding progress of projects is evaluated and analysed for variance, to lead to management action which may become necessary to be taken by the Director.

Such a management control system would help enforce accountability of the project leader for the research tasks assigned to him. But, before he can be held responsible for the achievement of results, it is necessary to ensure that he is provided with the various facilities required for an effective implementation of his project. These facilities may be in terms of the necessary delegation of powers, simple and workable administrative and financial procedures, and the necessary support services of accounts and administrative staff.

The ethos of a government department generally makes accounts and administrative staff status quo or maintenance oriented. But the needs of a research organization are very much different from those of a government department, and therefore, its value system has to be cultivated so as to be development oriented. The scientists are involved in researching into and understanding the problems of science and technology for finding solutions in order to promote and facilitate agricultural growth and development. The organisations within which they work must, therefore, be managed in such a way that the scientists are able to accomplish their tasks with the utmost efficiency.

The procedures and bureaucratic delays for the procurement of materials, equipment and other supplies required by the scientists for their research work are often found as difficult stumbling blocks by them. The justifications for the various input requirements have to be established at the time of preparation, scrutiny and approval of budget estimates for a project. As a scientist starts operating on such a budget, he should have adequate powers to issue sanctions against the approved estimates. The question, however, would arise for ensuring the necessary financial control as the expenditure is incurred for procuring the various inputs for which the provision has already been incorporated in the budget. At

present, actual procurement is processed through committees which are constituted either at the Divisional level or at the central level. These committees would generally include a number of scientists. In many cases, they also include representations from administrative and accounts sides.

It must be recognized that the primary function of a scientist is to be engaged in a successful implementation of his research project. He should, therefore, have to spend as little time as possible on administrative activities. His having to attend to some of the essential administrative work pertaining to his project is only by way of a better alternative in a trade off between his spending some time on these activities or his having to procure facilities specific to his project through the Head of Division with the consequent botherations and irritations for him. A scientist should, therefore, not be burdened with administrative work beyond what is absolutely necessary to manage his project. A suggestion is accordingly offered that the committees for procurement of various inputs should comprise of a management scientist assisting the Director in administrative functions and the Head of Division (if necessary) and include administrative and finance personnel as considered necessary. The scientist concerned with the procurement proposal should be included as a member of the committee for his specific purpose

only. A research scientist not concerned with procurement proposals of other scientists should not have to serve as a member on committees meant for the purpose. The approach should be to spare as much time as possible of a scientist to enable him to devote it to his research work, for the results of which he is to be held accountable.

Procurement of materials and equipment is a highly important function in the institutes of ICAR. A large number of irritations between the scientists and the administrative and accounts staff arise because of the long delays taking place in procurement and the non-availability of materials when needed. These delays cause inconvenience to the scientists and disturb their programme schedule for completing their research. Any effort to procure material or equipment speedily often gets thwarted by the prescribed procedures for purchases and by a strict observance of financial rules and regulations in order to avoid audit objections later.

It is not suggested that certain proper rules, regulations and procedures should not be there. In fact, these are essential to avoid chaos and confusion in the functioning of an institute. What is, however, suggested is that the irksome and cumbersome procedures should be analysed and, to the extent possible, simplified to facilitate timely procurement of supplies for the scientists. The rules and regulations followed

by the ICAR's institutes are in most parts the same as obtaining in the government departments. In fact, there is a specific provision in the ICAR Rules that the government rules will mutatis mutandis apply to ICAR and its institutes. A research organisation, however, would find it difficult to function effectively if it is bound by the constraints and restrictions of government rules and regulations. The procedures applicable in a governmental situation would have stagnating effect in meeting the demands and needs of scientists working in a research institution. In Government, a sort of uniformity is maintained by governing the departmental purchases by rules and regulations contained in the published documents like Delegation of Financial Powers Rules, General Financial Rules, and Compilation of Treasury Rules.

The requirements of scientists working in a research institute are very much different from that of functionaries operating in a governmental organisation. These scientists' needs for materials and equipment are urgent in most cases and relate to varied nature of stores and are also specific in a number of cases. Very often they need materials of high quality and sophisticated scientific equipment for conducting their research work. This requires considerable flexibility and discretion being available to a research institute in the matter of purchase procedures and stores

management. The ICAR is a registered society and has been endowed with an autonomous status. It can, therefore, frame its own rules which may be conducive to its objectives of promoting agricultural research and education. It can, and in fact has delegated a good amount of powers to the Directors of the various institutes functioning under it. The ICAR has, however, carried the legacy of government rules and regulations in the matters of purchase procedures for items above a certain limit. It may be stated that the ICAR being a body financed from public funds and, therefore, accountable to Parliament, can not completely dispense with some of the requirements of government rules and procedures. But, ICAR also possesses a good amount of autonomy to frame its own rules and regulations to suit its particular needs. It has, however, not so far effected the modifications and adjustments in its rules and regulations which are necessary and also possible to be made within the frame-work of the government's requirements, to improve the efficiency of the working of its institutes.

This procedural inflexibility has resulted in a number of irritations in the matter of making purchases, particularly when they have to be transacted through the DGS & D. Considerable delays take place in obtaining materials and equipment through DGS & D, and also large amounts of money belonging to the ICAR institutes remain outstanding as advances to DGS & D.

Any material or equipment costing Rs. 10,000/- or more has to be purchased through DGS & D if it is covered by DGS & D rate contract. The procedure involves lot of delays in finally procuring the item. When materials of high quality and sophisticated scientific equipments are required to be purchased at rate contracts as finalized by the DGS & D, the procedural wrangles involved take a very long time in finalizing indents. Some of the firms which have already got their rates approved by the DGS & D, quite often do not supply the item on placing the order. The delays involved in going through various procedures adversely affect the research project whose implementation suffers badly. In the case of an item not covered by the rate contract but whose cost exceeds Rs. 50,000/-, the purchase has to be made through DGS & D only. The DGS & D requires the approximate cost of the supplies alongwith departmental charges to be deposited with it in advance by the indenting party.

To eliminate the inordinate delays which take place in procuring materials and equipment through DGS & D, the entire arrangement for the utilization of the services of DGS & D needs to be reviewed. It would be better if the ICAR can organize its own agency for arranging centralised purchases for its institutes, and do away with the role of the DGS & D in the matter of its purchases. This suggestion, of course,

would need to be examined in detail in its various aspects. There is, however, an urgent need to remove the long delays which at present take place while effecting purchases through DGS & D, and which cause lot of irritations and frustrations to the scientists because these seriously dislocate and upset their research work.

It is of extreme importance that suitable systems are developed by the ICAR institutes for streamlining procurement of materials, and for their storage and supply. As observed by us in some of the institutes, no systematic usage analysis of materials is being carried out at present. If it could be worked out as to how much of different types of materials are used in the course of a year, it should make the task of planning for procurement in advance easier for keeping the level of availability at a point so that there is neither over-stocking nor shortage. A good amount of items used in a research laboratory are usually predictable. Their requirement should be estimated well in advance and the procurement planned accordingly. Usage analysis can be of great help in forecasting demands of materials and in classifying items into categories of heavily, moderately and sparingly used items depending upon the nature of research activity. An analysis of the pattern of consumption of materials can greatly help in determining the necessary procurement policy and procedures.

It has been observed that certain equipments possessed by different Divisions of an institute, which are required for use by scientists in another Division do not easily become available to them. It may be desirable to consider that for such major equipments, a centralised facility is created to which all the scientists in the Institute who need to use the equipment should have access according to a proper system established. The scientists must, however, be kept informed about the existence of these facilities in the Institute.

In the matters of purchases which are not required to be made through DGS & D, different procedures are followed depending upon the cost of the item involved. If the cost of material to be purchased is more than Rs. 10,000/- and does not exceed Rs. 50,000/-, and the item is not on the rate contract of DGS & D, the procurement has to be made through open tender by advertising the requirement in newspapers. In the case of stores where the cost does not exceed Rs. 10,000, the purchase can be made through limited tender by direct invitation to selected firms. For items of stores of a proprietary nature or which are manufactured by a single firm, an invitation to tender can be given to that firm with the approval of the competent authority. There are also certain relaxations made for making purchases in case of an acute emergency, when stores can be purchased through negotiation

with one or more firms provided the reasons for such an action are recorded in the file.

The procedural requirements for making purchase of material costing less than Rs. 10,000/- are that quotations have to be invited by direct invitation to a limited number of firms and the purchase effected from lowest quoter. However, on several occasions, the scientists concerned do not want to accept the offer of the lowest quoter and find another quotation as more suitable for their purpose. This is a situation where the scientist should be assisted by a finance expert in justifying a higher quotation as more beneficial, so that there are no problems encountered later with Audit. After obtaining all the facts from the scientist regarding cost estimates over the life span of the equipment or machinery and the benefits to be obtained during the same period, the financial expert should try to establish on record the justification for selecting a higher quotation. He may even use techniques like discounted cash flow if it is found relevant for the purpose in a particular situation. Even otherwise, efforts should be made to formulate and have a simplified purchase manual for ICAR institutes so that audit objections are kept to a minimum.

It will be an inefficient and uneconomical utilisation of time and effort of various functionaries if the same procedures have to be followed for processing cases of purchases irrespec-

tive of the size of the amount involved. It is only purchases involving expenditure above a specified limit (say Rs. 1000 or some other reasonable amount) that these should be processed by a committee based in the central office to which the scientist concerned, requiring the particular item, is co-opted as a member for the purposes of his purchase only. The purchases of materials which involve expenditure of amounts less than this limit may be handled within the Division. In the case of smaller items of purchase, it should not be necessary to obtain three quotations. The scientist competent to sanction the purchase alongwith two other officials from his Division should be sufficient to decide on the purchase even when three quotations are not available for the purpose.

This should, however, not apply to common use items which are required by various Divisions in the Institute, and which should be procured by the central purchase section of the Institute. Of course, advance planning must be done on the part of all concerned for estimating the requirements of such items, and the necessary action taken to procure these well on time. It is only in exceptional situations when these items are not available in the central stores, that the scientists should possess powers for effecting the necessary purchase after observing the prescribed procedures. For those materials which can be purchased without having to go through the central

purchase committee, and are required for use by various scientists, the central office may approve some firms and settle rates with them for these articles, so that a scientist is able to make the purchase from these approved suppliers without spending time on various procedural requirements.

To cut short delays in making purchases of materials and equipment required by the scientists for their research work, in addition to rationalising the purchase procedures and rules, adequate powers need also to be delegated to different levels of scientists. A considerable amount of administrative and financial powers have been delegated by the ICAR to the Directors of the research institutes functioning under it. The Directors in their turn have redelegated some of their powers to some of the scientific and non-scientific personnel working in their institutes. There are, however, different patterns of redelegations obtaining in the various institutes. Generally, a Head of Division is delegated powers to sanction a purchase upto a certain limit. The maximum of such a limit in any institute is Rs. 5000/-. In some institutes different grades of scientists, even when they are not occupying the position of Head of Division, have also been delegated powers for sanctioning purchases within prescribed limits. After the Head of Division or the competent scientist sanctions a purchase, it goes to the central purchase section for floating the necessary tender. After receipt of

quotations from the interested suppliers, availability of funds is got verified from the accounts section and the necessary orders placed on the firm whose quotation is selected by the purchase committee.

In a project based system of responsibility centres, powers for sanctioning a purchase upto Rs. 5000/- should be delegated to each project leader provided he is S-3 grade scientist or of above level. Other levels of scientists, i .e., S-2 grade and S-1 grade should be delegated downward graded powers for sanction of purchases, say, Rs. 3000 for S-2 grade scientist and Rs. 1000 for S-1 grade scientist or some other suitable limits. A Head of Division may also be delegated powers for sanctioning purchase upto Rs. 5000/- if he happens to be principal investigator of a project. He may, in addition, be delegated specified powers for sanctioning purchases in his capacity as Head of Division to maintain and meet the requirements of common facilities of the Division. Enhanced delegations would be necessary for a scientist who is incharge of a regional centre located at a place far removed from the headquarters of the Institute. The delegation pattern for such regional centres would need to be framed after making a thorough study of their specific needs and by striking a balance between the requirements of financial control and providing the necessary facilities to the scientists.

In most of the institutes powers have been delegated to Heads of Divisions to make purchases directly, without inviting quotations, of items of stores upto a specified limit of expenditure, which ranges from Rs. 100/- to Rs. 250/-. Such a purchase can be made without obtaining verification of the availability of funds from the central office. If budget allotments are to be made on the basis of projects after their estimates have been duly scrutinised and approved, even verification of the availability of funds for purchase sanctions of higher amounts, but within the allotted funds, should not be necessary.

The limit of Rs. 250/- for making urgent purchases without quotations is too low in view of the price situation of the present. This limit should be considerably increased, say, to Rs. 1000/- (or some other reasonable amount), and the delegation should be exercisable by the scientist incharge of a project. But, such a purchase, without inviting quotations should be effected by a small group of three officers, one the scientist concerned himself and two others from his Division. This would ensure the interests of financial control. Because, financial control should be deemed to have started when there are more than one individual taking part in a transaction. The procedure according to which the scientist concerned has to associate two more officers with such a type of purchase,

would provide the necessary control mechanism, even when the purchase is made without inviting quotations. This should be, by and large, the procedural requirement. But the Director of the Institute may at his discretion dispense with such a requirement in the case of purchases of very small items involving petty expenditure not exceeding Rs. 100/-. The Director may accept the production of a voucher pertaining to the purchase as sufficient proof for a petty expenditure.

For an efficient management of their respective projects, using the facilities provided and exercising the delegations given to them, the project leaders would need adequate administrative and accounts support. If the scientists have to exercise their powers properly they must understand the prescribed rules and procedures having bearing on such actions. The observance of rules and regulations on the part of scientists is essential so that audit objections are not attracted which would otherwise consume their time on a non-research activity. The scientists' awareness of the requirements of financial rules can be ensured if each Division is equipped with competent administrative/accounts personnel who should provide the needed support to the Head of Division and other Project Leaders in the Division.

The ICAR has delegated considerable amount of powers and the necessary autonomy for internal management, to the

institutes under its control so that they may be able to create the necessary support system for their scientific activities. Within the broad framework of delegations from the ICAR and prescribed norms, each institute is free to evolve its own administrative system to suit its specific needs and to ensure a high level of performance. Each Institute must, therefore, work out appropriate arrangements for providing the necessary administrative and accounts support to the Head of Division and other Project Leaders in the Division to facilitate the exercise of delegated powers by them.

Depending upon the strength of a Division and using scientific norms, the requirements of each Division for administrative and accounts staff should be worked out. This complement of supporting staff which should be provided to a Division, would make a common facility for the Division and, therefore, should be placed under the control of the Head of Division. They would, however, assist the Head of Division and other scientists incharge of projects in maintaining records for the various projects being implemented in the Division, and for the use of common facilities of the Division. The supporting administrative and accounts staff would also provide the necessary help to scientists in their taking administrative actions like purchases of materials and equipment.

During our discussions with scientists, we were also told about their complaint regarding lack of typing facilities for getting their scientific papers typed on time. Some of them in fact told us that they have to do typing of their papers themselves or get them typed on payment basis. Possibly, the impression outside these institutes, and may be in the ICAR also, is that these institutes are overstaffed with secretarial personnel. On the contrary, the scientists have been feeling soar about not having been able to get even the minimum of secretariat service, like typing. It is necessary, therefore, that work study should be conducted to assess the adequacy of typing and stenographic services available in various institutes functioning under the control of ICAR. Based on suitable norms, a proper ratio should be established between the number of scientists working in a Division and the requirement of typists/stenographers. It would be better if this job of conducting work study in various institutes of the ICAR to determine the requirements of administrative and other supporting staff is assigned to an outside agency possessing expertise in the field.

CHAPTER - 7

OTHER RELATED MATTERS

Chapter - 7

Other Related Matters

The complaints of the scientists regarding inordinate delays which occur in the procurement of materials and equipment needed for their research work are justified and should be sought to be removed by rationalizing the purchase procedures. There is, however, lack of enough understanding on their part also of how to make use of the administrative arrangements of the organisation to obtain better service. They fail to appreciate that some administrative and financial procedures have to be prescribed by the organisation for an orderly management of its activities. Also, certain rules and regulations will be required to be observed in the matter of purchases to ensure the necessary financial control.

Whereas constraining procedures can be rationalized and simplified and also reforms can be brought about in the outmoded rules and regulations, human factor will continue to be important in the matter of dealings between the scientists and the administrative personnel. It is true that the administrative and accounts staff should be responsive to the needs of the scientists and be considerate to their problems, the scientists must also realize the difficulties of the administrative side in completing the various formalities required for

processing cases to effect purchases for supply of materials and equipment to the scientists. If only the scientists could plan and communicate their requirements sufficiently in advance allowing for the usual lead time for procurement, delays affecting the research work of the scientists would be considerably reduced. The scientists must understand and appreciate the limitations of the administrative personnel and try to co-operate with them for getting better service in return. One important way to facilitate the work of the administrative and purchase sections is to inform them regarding requirements of the scientists well in advance so that these sections could gear their machinery for procuring the items of stores on time.

It is imperative that the scientists' perception of the problems of administration is made realistic so that their expectations from the administrative side are brought into proper focus. This should considerably improve the working relationship between the two parties. To bring about the necessary change in the attitude of scientists, it is essential that they are given some training in accounts and financial matters and are made aware of the requirements and problems of the administrative system. The perception of the scientists about the role of the administration/accounts would undergo a change for the better when they are able to understand properly the limitations placed by various rules and regulations within the ambit of which the administration has to function.

It is understood that the scientists selected on the basis of the competitive examination for recruitment to the Agricultural Research Service are required to undergo an intensive course of study and training at the Staff College for Agriculture at Hyderabad during their probationary period. This opportunity should be utilised for imparting knowledge to the scientists about the essentials of the administrative system including basic information on the financial rules and procedures. The scientists who have already been inducted into the Agricultural Research Service including those occupying senior positions should also be imparted knowledge about the administrative system and the financial rules and regulations through short term training courses organized specially for the purpose. It would also help matters if an up-to-date compilation of rules and regulations is prepared in a cohesive and compact form and is made available for use by the scientists.

There are, at present, three types of audit being conducted of the ICAR institutes. One is External Audit done once a year by the statutory agency of the Comptroller and Auditor General. This is fully justified and is necessary to ensure financial accountability of the executing agencies to the controlling authorities and of the organization concerned to Parliament. Statutory audit also looks into propriety of

expenditures incurred in order to ensure that public funds are properly and economically spent.

The other two types of audit are conducted by internal agencies, one from within the Institute and another from the ICAR headquarters. The accounts staff of an institute, at present, perform a variety of functions. They attend to the work of examining financial proposals and the scrutiny of budget estimates for these. They are also responsible for the maintenance of accounts and for attending to requirements of statutory audit by the concerned Accountant General. The Accounts Officer acts as an adviser to the Director of the Institute on financial matters and also provides liaison with ICAR headquarters for these purposes. Another important function of the Accounts Officer is to conduct internal audit of the various establishments working in the Institute. He exercises pre-check on all the bills before they are paid and is responsible for the compilation of accounts of the Institute.

The audit conducted periodically by the inspection wing of ICAR covers more or less the same ground as done by the Accountant General's team. Quite often the objections raised and the issues made out are on the same subjects as taken up by the statutory audit. The Institute's staff, in such cases, have to do the same work over again entailing lot of time and energy, to provide answers and to satisfy the audit team from

the ICAR headquarters. It is, therefore, suggested that to lighten the work of the institutes and also to make investigations by the ICAR audit team more meaningful to really contribute to the efficient functioning of the institutes, the approach to audit by the ICAR agency should be completely refashioned. Instead of conducting financial audit in the same way as is done by the Accountant General's team, the ICAR audit agency should, at longer intervals, inspect the systems installed in the institutes for the conduct of internal audit. It should work out useful suggestions to help management in the successful discharge of their functions. It may also make recommendations to properly streamline the internal audit system of the institutes.

The internal audit agency in an institute should develop two types of specializations - one for financial audit and the other for management audit. The management audit wing should assist the monitoring of projects to help the Director in their evaluation and review. It should focus its efforts to analysing expenditure on different projects in order to examine whether the projects are being executed economically and whether they are producing the results expected of them. The information generated through management audit should help the Director in taking whatever remedial action becomes necessary.

There is a thinking in favour of involving more and more scientists in the administration of various activities of the Divisions and the Institute. This is sought to be secured through their participation in committees constituted for purposes, like preparation of budget estimates and allocation of funds among projects, managing common facilities, maintenance of transport, allotment of labour, assignment of laboratory space, floating of tenders and selection of quotations for making purchases, management of stores, discussion and approval of research projects formulated by the scientists, curriculum for studies, allotment of students and classes to scientists as faculty members, assignment of Ph.D scholars, management of library, etc. A large variety of committees constituted in the institutes of the ICAR transact various types of functions, which can be categorized either as academic or as administrative.

As already discussed in an earlier section, a scientist should be burdened as little as possible with non-academic work so as to leave enough time with him to devote to his scientific research. His participation in research and academic committees may be alright for his growth and development. It may also give him a feeling of involvement in the activities of the institute and provide him with the necessary perspective for the research work he has to do. But, his association with so many non-academic

committees transacting different types of administrative work for the scientists in the Division or the Institute can not be appreciated. It certainly takes away lot of his valuable time which could usefully be spent on his primary job of research.

It is, therefore, suggested that the participation of scientists in non-academic committees should be kept to the absolute minimum. These committees should mainly be composed of administrative and accounts personnel and presided over by a management scientist if necessary. A Head of Division may be taken as a member of the committee when matters pertaining to his Division are to be transacted. A scientist should also participate as a member of a non-academic committee when matters directly pertaining to his project have to be transacted by the Committee. Such a participation by a scientist in the work of a non-academic committee may even be desirable to remove any complaints on his part of not being treated properly so far as administrative matters relating to his project are concerned. But, beyond this, a scientist should be spared the maximum time possible to devote to his creative activity of research, by not involving him in non-academic committees.

Another problem which attracted our attention is regarding allotment of students among scientists for guiding their research and other academic work. There were bitter complaints heard from scientists about the lack of a rational criterion for taking decisions in these matters. It is suggested that the Director of the Institute himself should take active interest in the matter of allotment of students and classes to scientists and in enlisting them as faculty members so that some fair criteria may get evolved for the purpose.

To conclude, though our study was confined to the administration of the Divisions in the institutes under the ICAR, we have also touched upon some related issues and problems. We do realize that there are no simple solutions to the complex problems of the research institutions and the scientists working therein. These problems pertain to issues of hierarchy, and are financial, procedural and psychological in nature. Nevertheless, we are convinced that the remedies suggested by us would bring about significant improvements in the administration of the Divisions, which play pivotal role in the organisational system of the ICAR institutes. Given the desire on the part of the Council to introduce functional innovative measures and a reciprocal response from

our sincere and dedicated agricultural scientist community,
we are confident that our recommendations will be considered
and implemented in the spirit in which these are put forth.

.....

Negi/